

REMARKS

Claims 1, 2, 5, 6, 9, 10, and 31-51 were pending to this claim. Minor amendments were made to the claims 34, 40, and 48 to correct and obvious, typographical error introduced when presenting claims in the appendix of Applicant's Brief on Appeal.

In response to the claim objections, Applicants have corrected the dependencies in claims 34, 40, and 48.

Applicants respectfully request reconsideration of the rejection of claims 1, 2, 5, 6, and 41-51 as being unpatentable over Leupold, U.S. Patent No. 5,523,732. Applicant respectfully points out the Leupold '732 expressly states that an object of the invention is to provide a permanent magnet structure "that generates an adjustable or tunable ***uniform internal magnetic working field.***" Col. 2, Ins. 27-29. See, also, col. 2, Ins. 62-63; col. 3, ln. 30; col. The principal teaching is precisely the same as in the Leupold references discussed in prior responses and in Applicant's Brief on Appeal. Even in the embodiment where field is not uniform to produce a gradient (see col. 4, lines 17-29), there is no teaching to tune the various flux sources to optimize a magnetic field property at a selected operating point, as required by the claims, nor is there any teaching that various flux sources ever were tuned to optimize a magnetic field property at a selected operating point.

As applicants pointed out in Applicant's Brief on Appeal, there is a difference between a magnet configured to have a uniform field throughout a volume, and a magnet configured to maximize a magnetic field property at a particular point. While Leupold '732 mentions (without disclosing how) that the field can have a gradient, there is nothing in Leupold that suggest optimizing the gradient (or any other magnetic field property) at a particular point. Moreover, there is nothing in Leupold that would teach how to optimize the gradient (or other field property) at a particular point. Thus is nothing that would even suggest that the disclosed configuration could be used to optimize a field property at a particular point.

Claims 1 and require optimizing "a desired magnetic field property in a selected direction at a selected point". Claims 5 and 6 likewise require optimizing "a desired magnetic field property in a selected direction at a selected point". Claims 41-48 require

a magnet that optimizes “the magnetic field at the selected point in the selected direction”. There is no teaching or suggestion of such a magnet in Leupold.

Claims 49-51 require a magnet having a front face, and a back face substantially conforming to a surface of equal contribution. There is no teaching or suggestion of such a magnet in Leupold, which teaches cylinders and thus cylindrical surfaces, and not a surface of equal contribution.

For at least this reason, the rejection of claims 1, 2, 5, 6, and 41-51 as being unpatentable over Leupold, U.S. Patent No. 5,523,732, should be withdrawn.

Applicant respectfully requests reconsideration of the rejection of claims 9-10 and 31-51 unpatentable over Mainwaring et al., U.S. Patent No. 5,711,299, in view of Leupold, U.S. Patent No. 5,523,732.

Claims 9 is directed to a method of performing a medical procedure using the magnet of claim 1, and claim 10 is directed to a method of performing a medical procedure using the magnet of claim 5. There is no teaching or suggestion of such a permanent magnet in Mainwaring et al., '299, or Leupold, '732, and thus it cannot be obvious to use such a magnet. Moreover, the use of a permanent magnet which must be moved to change the applied field is not obvious from the disclosure of an electromagnet whose field direction and strength is changed by varying the applied current.

Claims 31-40 are directed to permanent magnets in which the magnetization direction varies with location to optimize the magnetic field at a selected point in a selected direction. In claims 31, 33-40 the magnetization direction varies in three dimensions, while in claim 32 the magnetization direction varies in two dimensions. As discussed above, Leupold '723 does not teach or even suggest such a magnet. Nothing in Manwaring et al. fills in the gaps of Leupold to teach or suggest such permanent magnet.

Claim 41-48 is directed to a permanent magnet in which the magnetization direction varies with location to optimize a the magnetic field at a selected point in a selected direction. As discussed above, Leupold '723 does not teach or even suggest such a magnet. Nothing in Manwaring et al. fills in the gaps of Leupold to teach or suggest such a permanent magnet.

Claims 49-51 are directed to a permanent magnet in which the back face substantially conforms to a surface of equal contribution. Nothing in Leupold '723 or Manwaring et al. teaches or even suggests such a magnet, or even mentions surfaces of equal contribution.

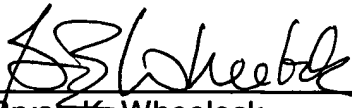
For at least these reasons, the rejection of claims 9-10 and 31-51 unpatentable over Mainwaring et al., U.S. Patent No. 5,711,299, in view of Leupold, U.S. Patent No. 5,523,732 should be withdrawn.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (314) 726-7500.

Respectfully submitted,

Dated: 8 NOVEMBER 2004

By: 
Bryan K. Wheelock
Reg. No. 31,441

HARNESS, DICKEY & PIERCE, P.L.C.
7700 Bonhomme, Suite 400
St. Louis, Missouri 63105
(314) 726-7500